Alberta Innovates Technology Futures

integration

ANNUAL REPORT 2009-2010

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For more details, visit :
www.albertainnovates.ca/technology/about-us/biographies

Management Team

DR. GARY ALBACH
President and CEO

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CFO and Corporate Secretary

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Vice President Alberta Innovates Academy

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Acting Director, Human Resources

KERI SCOBIE
Acting Vice President Communications

RICK TOFANI
Director, Southern Alberta Operations

JAMES ROGAN
Manager, Corporate Planning

Alberta Innovates Technology Futures

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Image on the cover: Dr. Christoph Sensen and student in CAVE

Alberta Innovates – Technology Futures (Tech Futures) celebrates January 1, 2010 as its creation date. However, its genesis traces back through nine decades, bestowing this fresh new provincial corporation with a solid heritage foundation and continuing achievements.

Tech Futures builds on the strengths and successes of the former Alberta Research Council (ARC), Alberta Ingenuity Fund (Ingenuity) and Alberta's Informatics Circle of Research Excellence (iCORE), as well as programs from Alberta Advanced Education and Technology, including nanoAlberta and Alberta's Bringing Technology to Market Action Plan.

Each of these heritage organizations and programs served as important links within the innovation chain in Alberta, each focused on technology commercialization in its own way. Some of these links attracted top talent from around the world, others created research partnerships and centres of excellence around this talent in a way that links industry, government and researchers, and yet another link prepared those emerging technologies for commercial application through final proof of concept, testing and scale-up.

By integrating the talented staff, resources and programs from the heritage organizations, Tech Futures has emerged to streamline the innovation process in order to better support Alberta's technical industries, and accelerate the growth of prosperous business in Alberta.

Tech Futures is positioned as a central hub for guiding and stimulating an enhanced system of collaboration and commercialization between the variety of entities operating in Alberta that are devoted to incubating entrepreneurs and innovative ventures. Tech Futures now manages funds earmarked for Ingenuity Centres and the five existing Regional Innovation Networks, including colleges, universities, technical institutions, research centres and economic development agencies.

Moving forward to extend the legacy of its founding organizations, Tech Futures will facilitate the commercialization of new technologies, the development of new knowledge-based industry clusters, and the establishment of an entrepreneurial-based culture across the province. The stage is set for a stronger next generation economy built on the foundation of work that originates in Alberta and benefits the globe.

Message from Ron Triffo

CHAIR, BOARD OF DIRECTORS

There is a strong legacy of innovation in Alberta. From the early 1900s, Albertans and their government have recognized that research-driven innovation can launch an economy and provide the essential commodities to a community.

Since 1921, the Alberta Research Council has leveraged the strong interdisciplinary expertise of its researchers to assist companies in developing, improving and commercializing research results. From the oil sands to crops to the environment, this has allowed companies to improve their bottom lines, create jobs and diversify the Alberta economy, all while solving the problems that face Albertans each day.

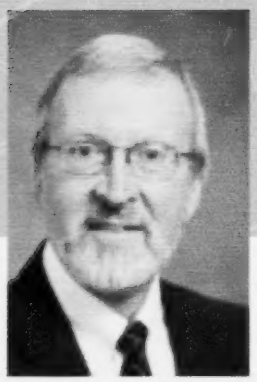
More recently, and as part of Alberta's continuing legacy for research and change, the Alberta Ingenuity Fund and Alberta's Informatics Circle of Research Excellence (iCORE) brought bright minds to Alberta, developed the talent that already existed in Alberta, seeding them into our academic community, bridging their knowledge into industry for over a decade and fostering the environment to make the next generation of research and business leaders.

Through nanoAlberta, we have advanced the province's strategy to capture a significant portion of the world's burgeoning nanotechnology market. We have worked to expand research capacity and develop new commercial applications to support Alberta's traditional economic strengths and spur economic growth.

Each of these organizations – Alberta Research Council, Alberta Ingenuity Fund, iCORE and nanoAlberta - achieved great success in growing technology, innovation and commerce in Alberta in their own way. We have now come together as Alberta Innovates – Technology Futures to continue building on the strong foundations and value that each organization brings, under one central innovation system.

Today, Alberta Innovates – Technology Futures is a new organization dedicated to building healthy, sustainable businesses in the province through programs and services for entrepreneurs, companies, researchers and investors. Many exciting opportunities are ahead for us, and I look forward to the guidance and input of our Board, our President and CEO, and all our employees as we chart our course forward.

RON TRIFFO, P.Eng.
Chair, Board of Directors
Alberta Innovates – Technology Futures



Message from Gary Albach

PRESIDENT AND CEO

Alberta Innovates - Technology Futures, a new, connected way of looking at Alberta's knowledge economy, is now open for business.

Tech Futures is taking strides to deliver on our mandate to help build globally competitive commerce in Alberta. Capitalizing on the success of the Alberta Research Council, Alberta Ingenuity Fund, Alberta's Informatics Circle of Research Excellence and nanoAlberta, we offer leading edge industrial research staff and facilities, equipment, support services and a suite of programs to provide Alberta companies, entrepreneurs, researchers, and investors with the tools they need to succeed. Our goal is to become Alberta's one-stop shop by providing technical services and funding for the commercialization of technologies, developing new knowledge-based industry clusters and establishing an entrepreneurial-based culture in Alberta.

This next year is one of change, growth and opportunity for our organization. We will unite and utilize our collective experience in product and process development, applied research and capacity building to enhance Alberta's innovation system.

We remain committed to growing commerce in Alberta, by constructing the best system for innovation with our provincial partners, by welcoming the best companies and researchers to Alberta, and by ensuring that our province remains a prominent player on the global research and innovation stage.

GARY ALBACH, PH.D.
President and CEO
Alberta Innovates – Technology Futures

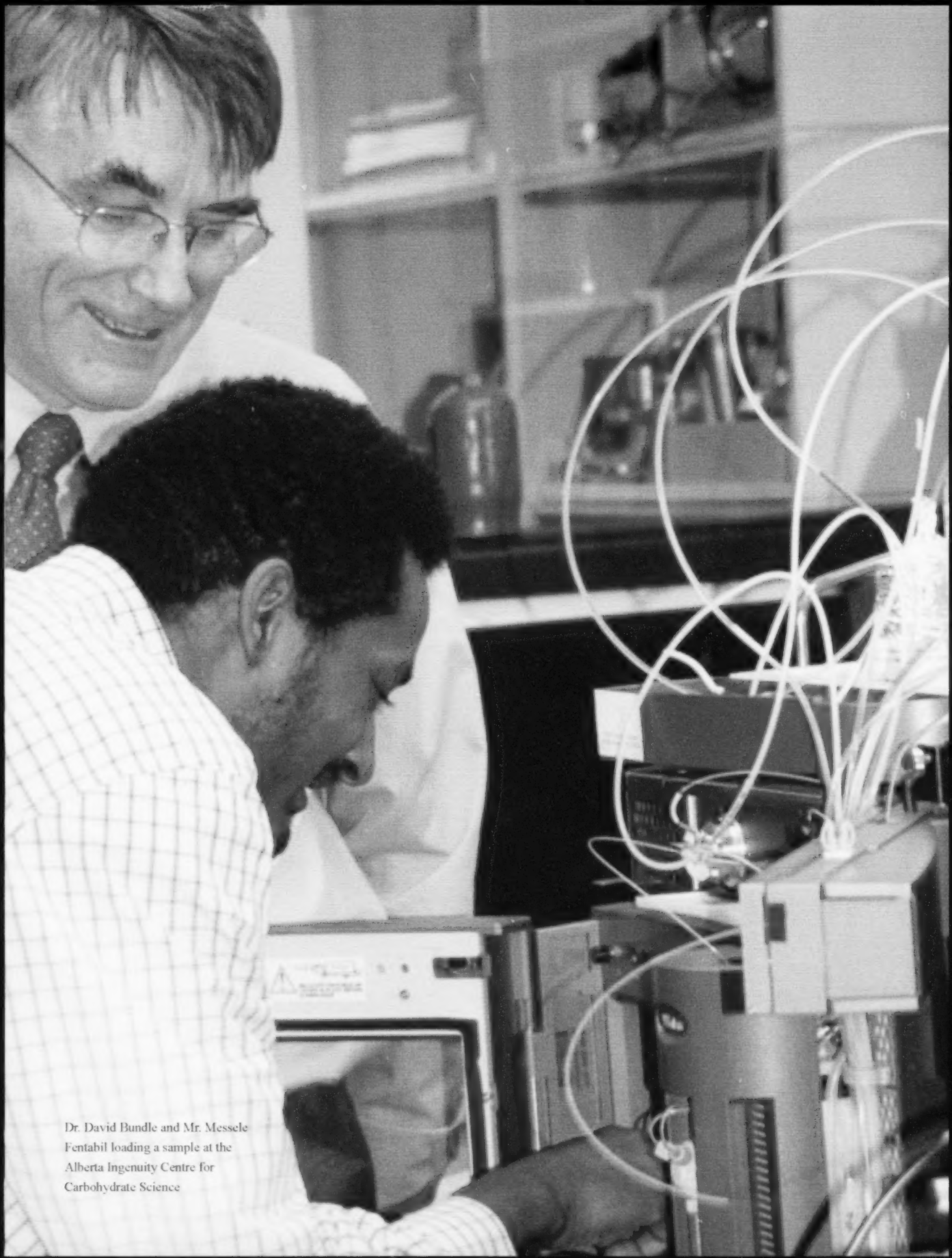
Alberta Ingenuity Fund was established in 2000 by the Government of Alberta as an arm's length foundation to address gaps in provincial support for science and engineering research and development.

Ingenuity drove Alberta's innovation capacity by establishing world-class research hubs, fuelling innovative companies and attracting creative, resourceful people who lead contributions to knowledge, policy, economy and global human development.

Operating from an $800 million endowment fund from the Government of Alberta, Alberta Ingenuity funded programs and individuals along the knowledge pipeline, encompassing graduate students to business associates. Ingenuity contributed to building the capacity of innovation by nurturing the discovery of new knowledge and encouraging its application to benefit Albertans and the world.

HIGHLIGHTS FROM 2009-2010 FISCAL YEAR

- Key representatives from Alberta Ingenuity, the University of Alberta and the National Institute for Nanotechnology celebrated the signing of a long-term funding agreement that enables the creation of the Alberta Ingenuity Nanotechnology Accelerator. This new initiative will drive the commercialization of new materials and products from nano investments in sectors such as forestry, agriculture, energy and environment.
- The Alberta Ingenuity Centres for Research and Commercialization, along with various research, government and industry partners, announced three new centres in 2009. The Alberta Ingenuity Centre for Integrated Resource Management (Tecterra), based at the University of Calgary, focuses on applying advanced geomatics to industry challenges. The Alberta Ingenuity Centre for Integrated Biomedical Technologies (Biovantage) is based at the University of Calgary and will deliver enhanced diagnostics and treatment opportunities for neurological illnesses, bone and joint diseases, fractures, cardiovascular diseases, and stent patency. Lastly, the Alberta Ingenuity Centre for Clean Coal/Carbon and Mineral Processing Technology (AIC4MPT) at the University of Alberta will design new methods and technologies to process fossil fuels and mineral resources to reshape Canada's energy future.
- Ingenuity was the proud sponsor of teams representing Alberta at the iGEM (International Genetically Engineered Machines) competition at MIT, the world's premiere undergraduate educational program in synthetic biology. In 2009, the team representing the University of Alberta won the Foundation Award for developing a rapid automated method for gene assembly.
- In 2009, the nanoWorks program announced the Hiatachi Electron Microscopy Products Development Centre. Based at NINT at the University of Alberta, the centre showcases three new electron microscopes, including the first Hiatachi environmental transmission electron microscope outside of Japan. The nanoWorks program operates in partnership with Western Diversification, the National Institute for Nanotechnology, nanoAlberta and the University of Alberta
- As part of its mandate, Alberta Ingenuity funded individuals within science and engineering. In 2009, the following numbers of grants were awarded:
  - Graduate Student Scholarships (natural sciences or engineering) – 53
  - Graduate Student Scholarships (nanotechnology) – 20
  - New Faculty Awards – 12
  - Industry Research & Development Associates – 42
  - Industry Commercialization Associates – 16



Dr. David Bundle and Mr. Messele Fentabil loading a sample at the Alberta Ingenuity Centre for Carbohydrate Science

The Doctor is always "in"

Whether the doctor is on the golf course, out for dinner or on vacation, the doctor is always "in" thanks to emerging technologies that got a fast-track from the lab into the doctor's hands through Alberta-based Calgary Scientific Inc.

Two of Tech Futures' heritage organizations, Alberta Informatics Circle of Research Excellence (iCORE) and Alberta Ingenuity Fund (Ingenuity), share a piece of the success story that is Calgary Scientific Inc. Founded in 2004, this company today produces the world's top technologies that ensure medical imaging is readily-available to doctors on standard computer browsers, iPhones and even iPads, facilitating quicker diagnostics and better prognoses for patients.

Mitchell and his team developed a software application to view remote medical images in 3D on the new iPhone 3G. "In acute diseases, timeliness is of essence," explains Mitchell. "You want to be able to provide a diagnosis and faster treatment as soon as possible. This software has been proven to enhance patient outcomes and reduce health care delivery costs."

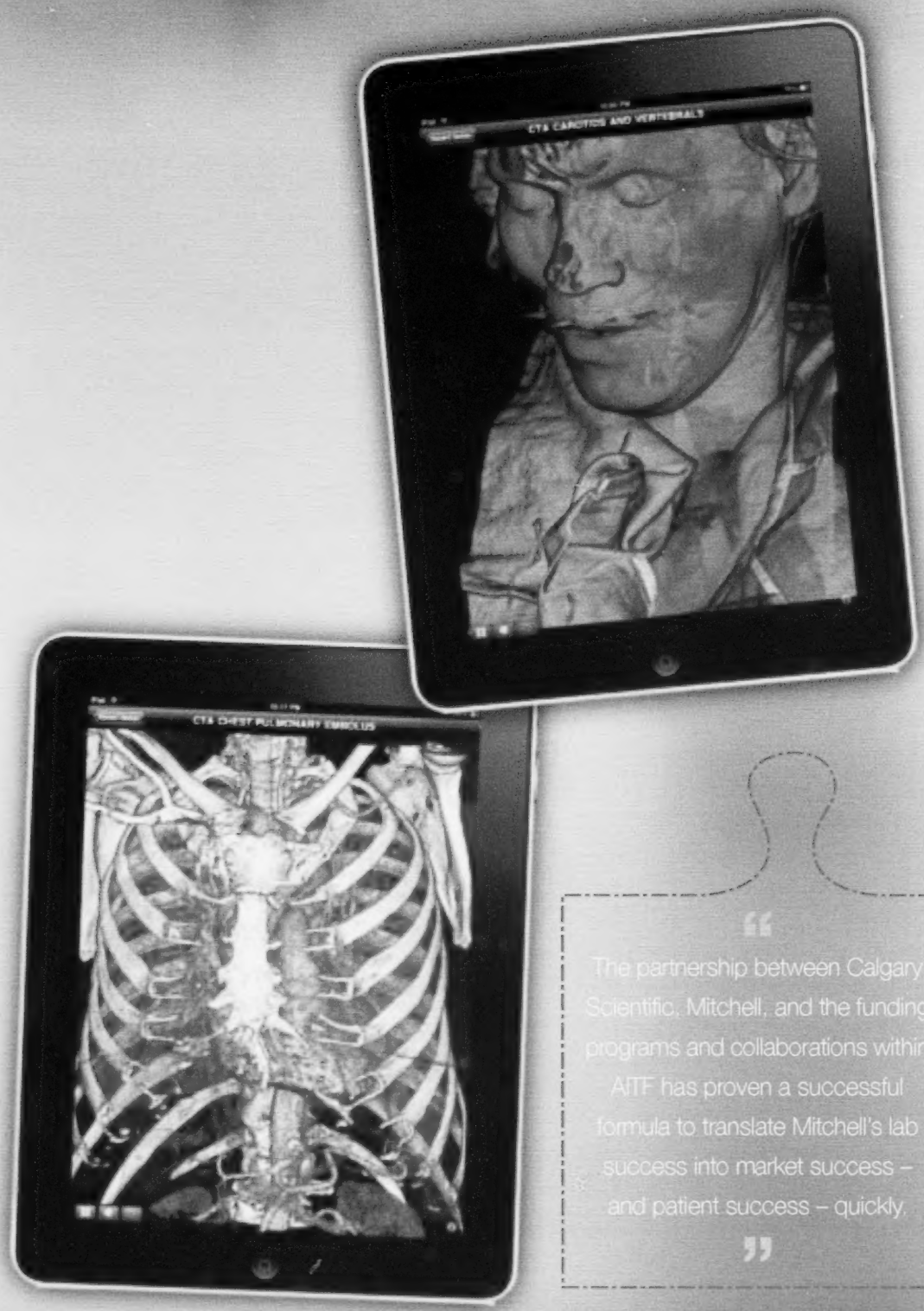
Calgary Scientific Inc. originated out of a team consisting of digital imaging researchers, medical doctors and computer scientists at the University of Calgary Medical Centre. Together, they created a new way to quickly access, fine-tune and explore images generated from Computerized Axial Tomography (CAT), Magnetic Resonance Imaging (MRI) and Positron Emission Tomography (PET) scanners on any standard desktop platforms. The software solution became ResolutionMD™, which now supports all standard and emerging medical imagining file formats that run on Macs or PCs.

Since 2005, the former Ingenuity has provided $420,000 in top-up funding to hire researchers through the Ingenuity Industry Associates program for Research and Development Associates. A business and commercialization expert was also hired with funding assistance from the Ingenuity Industry Associates program for Commercialization Associates.

Next, Calgary Scientific Inc. partnered with iCORE to further the research of Dr. J. Ross Mitchell and his team of researchers. Announced in 2008, the $2.1 million, five-year commitment secured Mitchell as the appointed iCORE/Calgary Scientific Inc Industry Chair in Medical Imaging Informatics at the University of Calgary. This industry chair program is jointly funded by the Government of Alberta through the former iCORE program. Funding includes $750,000 from the province, $375,000 from the University of Calgary and more than $1 million in funding and in-kind resources from Calgary Scientific Inc.

In addition to his role as iCORE Industry Chair, Mitchell will also serve as a Principal Investigator at the Alberta Ingenuity Centre for Biomedical Technologies (Biovantage), and will also be collaborating with the Alberta Ingenuity Centre for Machine Learning (Myriad Machine Learning).

The partnership between Calgary Scientific Inc., Mitchell and the funding programs and collaborations within Tech Futures has proven a successful formula to translate Mitchell's lab success into market success - and patient success – quickly.



> The partnership between Calgary Scientific, Mitchell, and the funding programs and collaborations within AITF has proven a successful formula to translate Mitchell's lab success into market success – and patient success – quickly.

Calgary Scientific's ResolutionMD™ medical imaging application on the iPad™

Success Stories

WHO:
Alberta Newsprint Company (ANC)

WHERE:
Whitecourt, Alberta

AITF HERITAGE ORGANIZATION:
ARC

IMPACT:
ARC's Pulp and Paper and Sensors Engineering specialists worked to create a suite of sensors and pulping processing adjustments to enable ANC to continue producing top-quality newsprint despite being forced to use inferior wood chips from mountain pine beetle-killed wood. The beetle's effects had devastated similar paper operations in B.C. and communities dependent upon these operations. Whitecourt's main employer, ANC, is now not only surviving the pine beetle's effects, but the project's adjustments have boosted production to record highs.

WHO:
Dr. Gerard Lachapelle, iCORE Chair

WHERE:
University of Calgary, Alberta

AITF HERITAGE ORGANIZATION:
iCORE

IMPACT:
With national pride and medals on the line in the highly competitive sport of alpine skiing, every fraction of a second counts. Lachapelle's tiny, compact GPS system "STEALTH" provided Canadian racers with the ability to analyze their performance and optimal track lines for their runs by tracing their locations and speeds down to the centimeter.

WHO:
Oil Sands Processors

WHERE:
Fort McMurray region

AITF HERITAGE ORGANIZATION:
ARC

IMPACT:
ARC Sensors Engineering specialists have partnered with a series of oil sands processing operators over the past decade to create a series of sensors, MineSentry, that collectively boost bitumen recovery from oil sands separation processes. Given the mass volume of bitumen, even a one per cent improvement in recovery could mean 10's of thousands of barrels per day of additional bitumen produced, and reduced environmental footprint.

WHO:
Alberta's Industrial Heartland

WHERE:
just outside Fort Saskatchewan, Alberta

AITF HERITAGE ORGANIZATION:
ARC

IMPACT:
AITF's Carbon Energy Management team is partnered with ARC Energy Resources to reduce carbon emissions from Alberta's Industrial Heartland, Canada's largest hydrocarbon processing region and home to 40+ companies with a combined investment of over $25 billion. The Heartland Area Redwater Project (HARP) is a carbon capture and storage initiative capable of storing an estimated 20 years of carbon emissions from the region into an underground formation, and includes some enhanced oil recovery from old area wells. The HARP project is currently in its second phase of pilot injections.

WHO:
Innovotech

WHERE:
Edmonton, Alberta

AITF HERITAGE ORGANIZATION:
Alberta Ingenuity

IMPACT:
Built on the research of the Biofilm Research Group at the University of Calgary, Innovotech announced the results of the first clinical trial of their new diagnostic tool, bioFILM PA™, the world's first and only test for biofilm bacteria – a diagnostic that will assist in antibiotic selection for 60 to 80 percent of infections worldwide. The technology, revolutionizing the treatment of chronic infections in cystic fibrosis patients, will be used on more than 200 patients at the CF clinics at Sick Kids Hospital and St. Michael's Hospital in Toronto.

WHO:
Residents of Northwest Territories

WHERE:
All communities in Northwest Territories

AITF HERITAGE ORGANIZATION:
ARC

IMPACT:
Life in Canada's north depends upon diesel to heat and power homes and buildings, and run vehicles. Northern life also depends upon aviation fuel to fly in supplies. ARC Fuels and Lubricants are in integral part of ensuring the fuel supplies for both ground use and aviation are suitable for the extreme cold. ARC not only provides testing services, but also remediation services, within remote communities if necessary, for any fuel found to be insufficient, thus protecting the lives and safe travel of northern residents.

Tech Futures researcher takes samples from a heavy oil test pilot project near Lloydminster

For 89 years, the Alberta Research Council Inc. (ARC) forged new paths of prosperity for Albertans by creating, refining and commercializing the technologies that converted Alberta's natural resources into economic opportunities.

Established in 1921 by a provincial government Order-in-Council, ARC was the first provincial research organization of its kind in Canada at the time, and remained the largest. Its mandate was to carry out research into the potential of the province's natural resources for industrial development. Early projects such as geological mapping and oil sands separation and production developments helped to lay the solid foundations that Alberta's biggest economic drivers still use today. The organization's history chronicles the development of the province's energy, agriculture and environmental management sectors.

ARC served more than 950 customers and partners within Alberta and around the world in the energy, life sciences, agriculture, environment, forestry and manufacturing sectors. More than 600 scientists, engineers, and professional ARC staff operated in four facilities located throughout Alberta, providing companies and organizations with access to leading edge expertise, unique equipment and scale-up sized facilities.

Throughout its history to the present day, ARC helped drive an economy fuelled on brainpower and innovation as an essential link between scientific research and market deployment. ARC leveraged its people, facilities and resources to ensure that technology innovations translated into the industry advancements that created new jobs and helped maintain Alberta's sustainable prosperity.

In the past year, ARC built upon this strong legacy by tackling complex industry challenges with a number of successful initiatives:

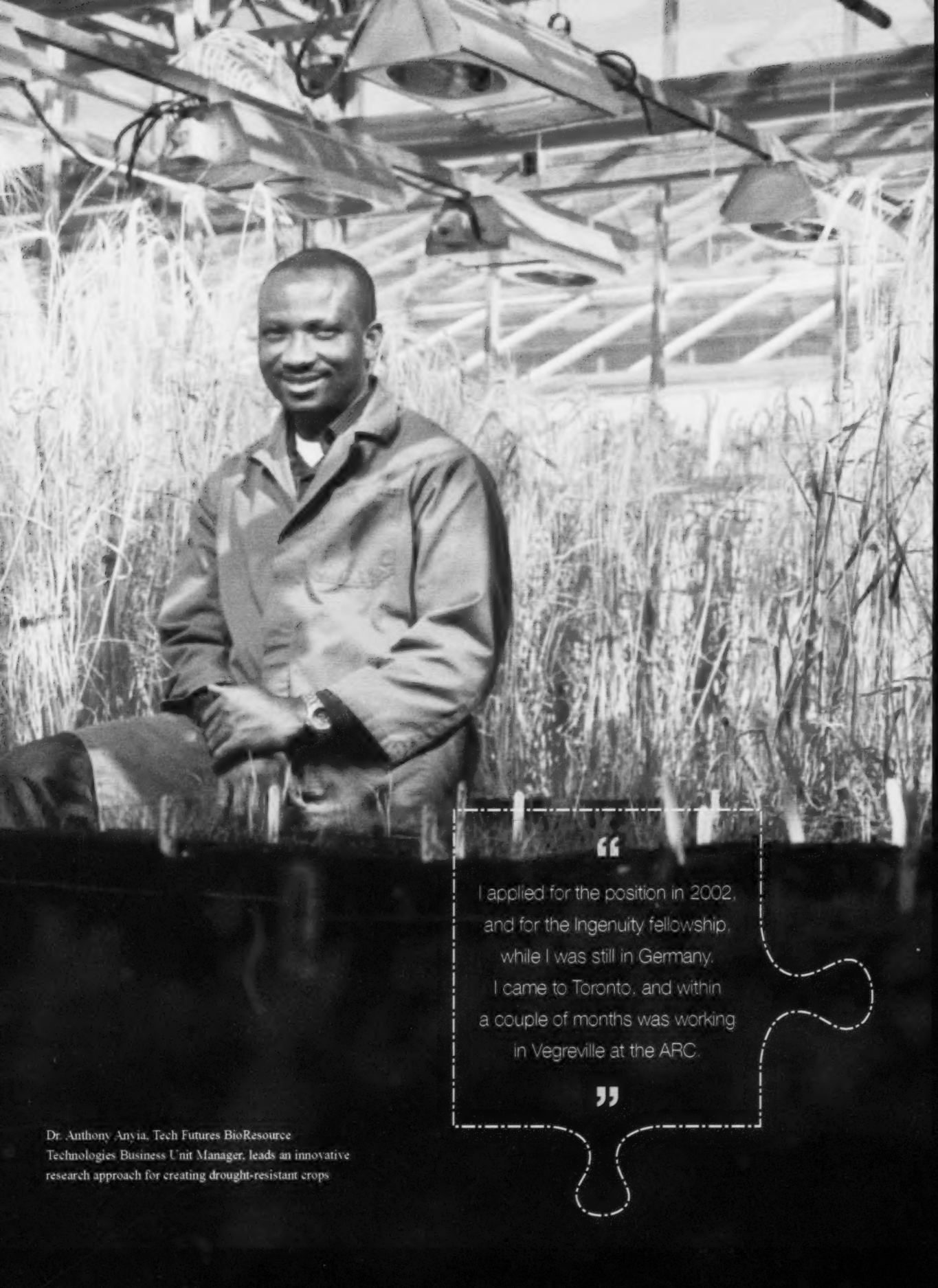
- The multi-million-dollar Materials and Reliability In Oil Sands (MARIOS) program launched with 25 industry partners in the spring of 2009 through the Advanced Materials business unit. MARIOS has a focused goal of extending the life-span of oil sands infrastructure, and providing reliability tracking to ensure scheduled maintenance and turn-over of equipment is timed to avoid unexpected materials failures. MARIOS tackles the maintenance challenge that costs oil sands operators an estimated $10 billion each year.

- The Vegreville location has been chosen as one of two sites for the Alberta Biomaterials Development Centre, announced by the Ministers of Advanced Education and Technology and Sustainable Resource Development. The $15 million project helps Alberta's agriculture and forestry industry find ways to use bio-based feedstock to develop products such as car parts from hemp.

- An ARC-led project that uses carbon dioxide (CO_2) to enhance coalbed methane extraction received an international award at the Carbon Sequestration Leadership Forum (CSLF) in London, England. The Enhanced Coalbed Methane Recovery Project, led by the Alberta Research Council in China, involved injecting CO_2 into deep, unmineable coalbeds, displacing the underground methane with CO_2. The ARC supported Heartland Area Redwater Project (HARP) program also received CSLF recognition. HARP aims to store up to 20 years worth of CO_2 emissions from Alberta's Industrial Heartland industries outside of Fort Saskatchewan in a deep, underground formation.

- ARC-patented technology to create Oriented Structural Straw Board (OSSB) building panels from wheat straw went into commercial production. Licensee and partner Panel Board Holdings opened the world's first OSSB production plant in China to meet that country's high demand for economical, earthquake-resistant building supplies made from local materials with tremendous carbon emissions reductions over traditional Chinese building materials.

- A pilot plant test of new ARC-developed sensors and processing adjustments offers hope to pulping communities across Canada facing mountain pine beetle infestations. ARC's pilot partner, the Alberta Newsprint Company at its Whitecourt facility exceeded previous production records, despite the use of inferior-quality wood chips from mountain pine beetle-killed wood. Prior to ARC's technology solutions, usage of beetle-infested wood meant inferior paper and forced the shutdown of other newsprint operations in B.C., severely impacting those communities involved.



> "I applied for the position in 2002, and for the Ingenuity fellowship, while I was still in Germany. I came to Toronto, and within a couple of months was working in Vegreville at the ARC."

Dr. Anthony Anyia, Tech Futures BioResource Technologies Business Unit Manager, leads an innovative research approach for creating drought-resistant crops

AITF origins tag-team to attract researcher creating top crops for drought

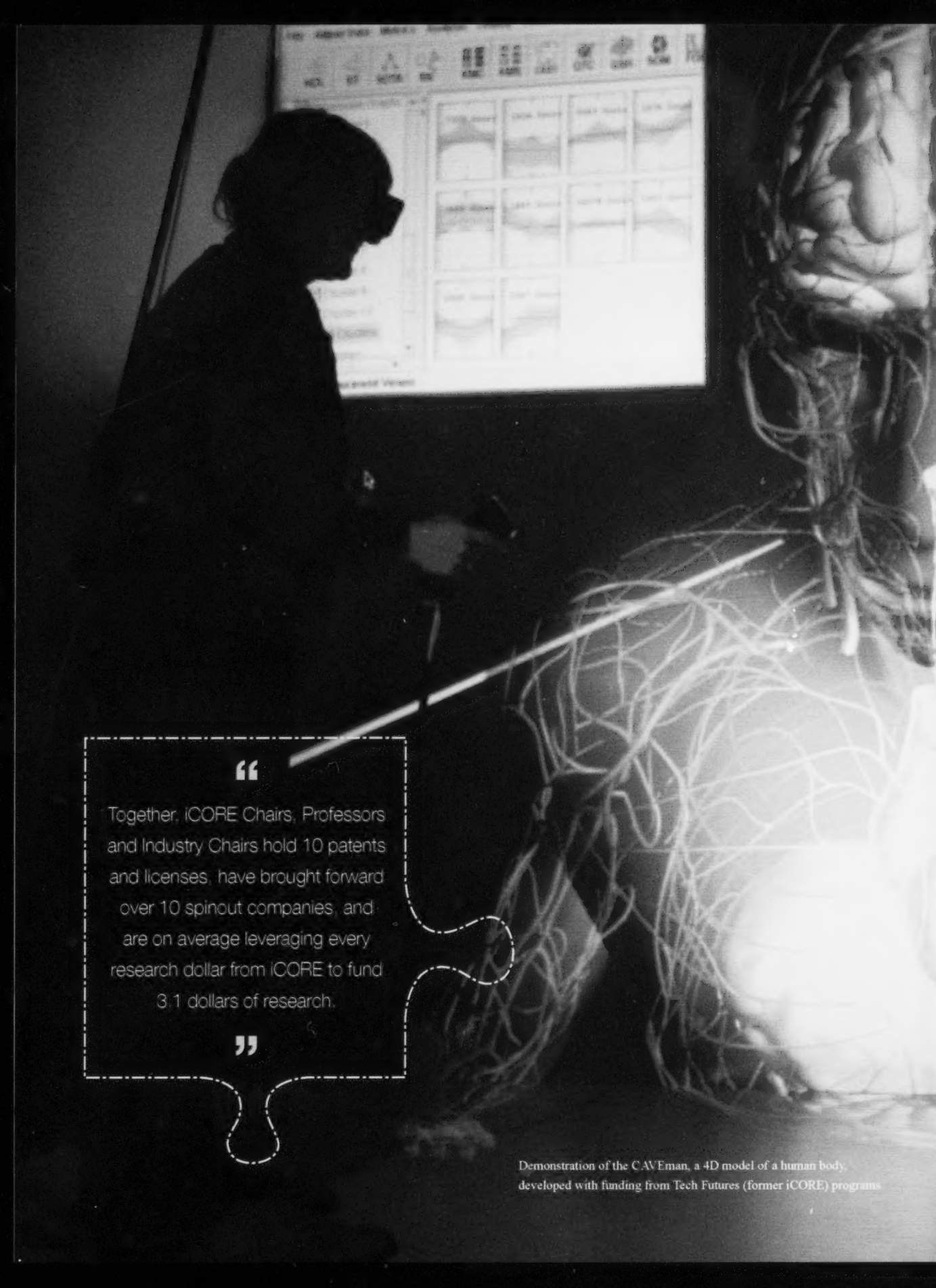
Farmers in Alberta and around the world may soon be weathering drought conditions better, thanks to the combined efforts of two heritage Tech Futures organizations to attract a top crop researcher to Alberta.

The former Alberta Research Council (ARC) and Alberta Ingenuity Fund (Ingenuity) both played a part in attracting Nigerian Ph.D. student Anthony Anyia to Vegreville eight years ago. Anyia was enticed to transplant himself into Alberta by the tag-team efforts of the two corporations.

When Nigerian-born Anyia was completing Ph.D. training in Berlin, a chance meeting with a Canadian colleague in Poland led Anyia to zero in on Canada for employment. A website for plant physiologists featured a posting for a position at the ARC, with the position contingent upon funding for post-doctoral research and development through the Alberta Ingenuity Industry Associates program.

"Before that posting, I had never even heard of Alberta," Anyia laughs. "I applied for the position and the fellowship while I was still in Germany. I came to Toronto and within a couple of months was working in Vegreville," Anyia recalls. Anyia was announced as ARC's first-ever r&D Industry Associate in 2003.

That decision by Anyia has helped put Alberta on the world map in the critical field of drought crop management. Anyia leads a team of researchers examining genetic markers that indicate how well a crop variety utilizes available moisture at critical growing periods – early seedling vigour, mid-season stem sugar storage, and late-season conversion into seedheads. This unique approach to crop-breeding for these desirable traits can be translated into a broad spectrum of crops used both in Alberta and around the world.



> “Together, iCORE Chairs, Professors and Industry Chairs hold 10 patents and licenses, have brought forward over 10 spinout companies, and are on average leveraging every research dollar from iCORE to fund 3.1 dollars of research.”

Demonstration of the CAVEman, a 4D model of a human body, developed with funding from Tech Futures (former iCORE) programs

The Alberta Informatics Circle of Research Excellence (iCORE) was created to build Information and Communication Technology (ICT) capacity in Alberta, by recruiting world class researchers to the province and encouraging them to build research teams, facilities and industry partnerships to diversify and strengthen Alberta's economy.

With an $113M provincial investment from the province over 10 years , iCORE created a successful research funding model that is recognized worldwide. The iCORE supported research community now encompasses 30 research teams and over 1300 researchers at four universities across Alberta. Together, iCORE Chairs, Professors and Industry Chairs hold 10 patents and licenses, have created over 10 spinout companies, and are on average leveraging every research dollar from iCORE to fund 3.1 dollars of research.

Overall, iCORE succeeded in changing the ICT landscape in Alberta; building research capacity in Networks and Wireless technology, Intelligent Software Systems, New Architectures, Sensor Networks and Bioinformatics. With the guidance of the International Research Advisory Committee, iCORE expanded these areas into cross-platforms for collaborative research, providing the impetus for universities to do the same, strengthening each platform and expanding its impact on multiple industries.

Now a part of Tech Futures, iCORE's Academy of researchers continues to deliver research results, trained skilled workers, and commercially valuable technology for Alberta's economy.

During the 2009-2010 fiscal year, the iCORE Academy welcomed five new researchers, and several industry partners:

- Dr. Kinshuk was established as the groundbreaking Industry Chair at the Athabasca University. Dr Kinshuk's work in mobile learning technology brought investment dollars from partners Xerox, and the Markin Foundation to the Athabasca University, to improve access to education all across Alberta and revolutionized mobile learning research and education worldwide.

- Funded by IBM Canada, Dr. Eleni Stroulia's work in Service Systems Management and research on problems relevant to the software industry results in programs like that of University of Alberta's Health Services Education program where it uses virtual reality technologies to simulate the fast-paced, complex world of the modern hospital.

- A pioneer in sensor technology, Dr. Orly Yadid-Pecht was recruited by the University of Calgary from Israel to establish a world-class facility and research team in the application of sensors. Dr Yadid-Pecht's research in sensor technology impacts areas as familiar as cell phone cameras, home video monitoring and security systems, and as far away as space applications.

- In 2010, Drs. John Chen and Mario Costa-Sousa received Industry Chair Establishment grant funding from the CMG Reservoir Simulation Foundation (Foundation CMG) . The public-private partnership allows industry to leverage research and expertise in petroleum reservoir modeling and computer simulation, and illustrative visualization.

Success Stories

WHO:
Dr Christoph Sensen,
iCORE Chair

WHERE:
University of Calgary, Alberta

AITF HERITAGE ORGANIZATION:
iCORE

IMPACT:
Sensen's simple blood sample test may hit commercial use within a couple of years, allowing cattle ranchers to determine in advance whether any of their herd will develop BSE or chronic wasting disease. This would replace the current post-mortem brain tissue test required on every carcass slaughtered and nip any potential outbreaks before symptoms appear and trade is impacted. From both standpoints, this blood test would be a huge competitive boon for the $2.2 billion/year Canadian cattle industry when marketing its beef abroad.

WHO:
In-Situ* SAGD Operators

WHERE:
Athabasca and Peace River Regions

AITF HERITAGE ORGANIZATION:
ARC (C-FER)

IMPACT:
C-FER, a wholly owned subsidiary of Tech Futures, has collaborated with a number of SAGD operators over the last few years, to improve well construction practices. The work involves the analysis of field data, to understand the main factors affecting well integrity, the construction of specialized laboratory equipment for qualification testing of equipment, to ensure its reliability for this high temperature application, and the evaluation of well completion options, to achieve efficient steam injection into the reservoir. The goals are to reduce the risk to public safety and the environment, promote more efficient energy utilization and improve overall project economics.

WHO:
Dr Fadhel Ghannouchi,
iCORE Chair

WHERE:
University of Calgary, Alberta

AITF HERITAGE ORGANIZATION:
iCORE

IMPACT:
Halving the energy requirements of cell phone signal transmission towers will halve the CO_2 footprint of global cell phone messaging, currently estimated at 803 million tonnes of carbon dioxide each year. That's equal in volume to the world's air travel carbon footprint. Dr. Ghannouchi's new signal devices use half the power of regular signal devices, creating a global green product with massive demand and roots in Alberta.

WHO:
Userful Corporation

WHERE:
Calgary, Alberta

AITF HERITAGE ORGANIZATION:
Alberta Ingenuity

IMPACT:
Userful Corporation has emerged as a world leader in low-cost, green, virtualized desktop computing. Userful's unique IT software effectively turns one PC into 10 by simply adding video cards, monitors, keyboards and mice. Through the support of Alberta Ingenuity, Userful continues to make significant advancements in R&D and commercialization, including emerging markets such as the Ministry of Education in Brazil who recently awarded Userful the world's largest Linux desktop deployment of 356,800 workstations in schools across its 5,560 municipalities.

WHO:
Flexible Solutions International

WHERE:
Taber, Alberta

AITF HERITAGE ORGANIZATION:
ARC

IMPACT:
AITF's large-scale NuRx fermentation labs and specialized expertise perfected FSI's fermentation process to convert Alberta-grown beet juice into valuable aspartic acid which is further processed to polyaspartate (TPA) in FSI's Illinois plant for sale and distribution around the world. TPA has wide usage including scale inhibitors, detergent ingredients, water treatment and crop enhancement. With NuRx's technical assistance, FSI opened a new aspartic acid manufacturing plant in Taber, Alberta, employing 15 people directly, and growing its local beet producer market.

WHO:
Embedia Technologies

WHERE:
Calgary, Alberta

AITF HERITAGE ORGANIZATION:
Alberta Ingenuity

IMPACT:
Embedia Technologies is a Calgary-based company that develops, manufactures, and installs systems for internal and external window shades, solar-control devices, and interior day lighting applications. The award-winning Dynamic *Façade Controller* monitors a building's internal and external environments, and takes into consideration the outside temperature, time of day, and time of year to make any necessary adjustments to the automated shading system. With the support of Alberta Ingenuity, and partnering with manufacturers and distributors in Alberta, Embedia has helped to raise the province's portfolio of high-tech companies with completed projects in Australia, Canada, and the US.

nanoAlberta was created by the province to deliver on the Alberta's Nanotechnology Strategy – a vision to strengthen Alberta's economy by investing to capture a significant market share of the world's burgeoning nanotechnology market.

Since its inception, nanoAlberta has worked with industry, researchers and investors to help build Alberta's nanotechnology industry and apply the benefits of nanotechnology in the energy, environment, medical, agriculture and forestry sectors.

In 2009-2010 nanoAlberta continued progress by establishing research centres and partnerships and bringing the world's nano strategy leaders to Alberta:

- In July 2009, the Hitachi Electron Microscopy Products Development Centre (HEMiC) was announced with Alberta partners - Western Diversification, the National Institute for Nanotechnology (NINT), the University of Alberta and Ingenuity. HEMiC houses three new electron microscopes valued at $7 million, including the first-ever Hitachi environmental transmission electron microscope Model H-9500 in operation outside of Japan. The centre is focused on developing new microscopy products and applications and is located on University of Alberta Campus, at the National Institute for Nanotechnology. nanoAlberta was one of the key partners and supporters of this project.

- nanoAlberta played an integral role in bringing the World Micromachine Summit to Edmonton in 2009. World Micromachine Summit is an annual event where international delegations meet to exchange perspectives about the business, policy and research opportunities presented by micro-scale and nano-scale technologies on a chosen topic of importance. The event in Edmonton attracted 85 delegates from 20 countries and focused on "Energy and Environment." In the event's 15-year history, this was only the 2nd time to be held in Canada.

- The 2009 TAPPI International Conference on Nanotechnology for the Forest Products Industry was a high-level event originating from activities done by nanoAlberta. The conference brought attention to topics including Nanocomposites, Processing and Properties, New Generation Bioproducts, Nanoscale Characterization, Global Challenges and Opportunities, and also Future Directions for Forestry Industry overall. It was the first time for the conference to be held outside the United States. Over 200 delegates from numerous countries participated.

- A Memorandum of Understanding (MOU) was signed between the President of Rice University and the Alberta Premier on behalf of nanoAlberta as a result of efforts by nanoAlberta to develop a relationship with Rice University. Since the signing of the MOU, nanoAlberta supported four projects that work towards developing a sustainable nano-enabled products and processes in the energy and environment sectors with commercialization opportunities in Alberta.

- nanoAlberta spent the past year surveying and compiling data for the Alberta Nanotechnology Asset Map, which provides a snapshot of Alberta nanotechnology activities and resources at all levels: research, industry, funding, people, facilities, and infrastructure.

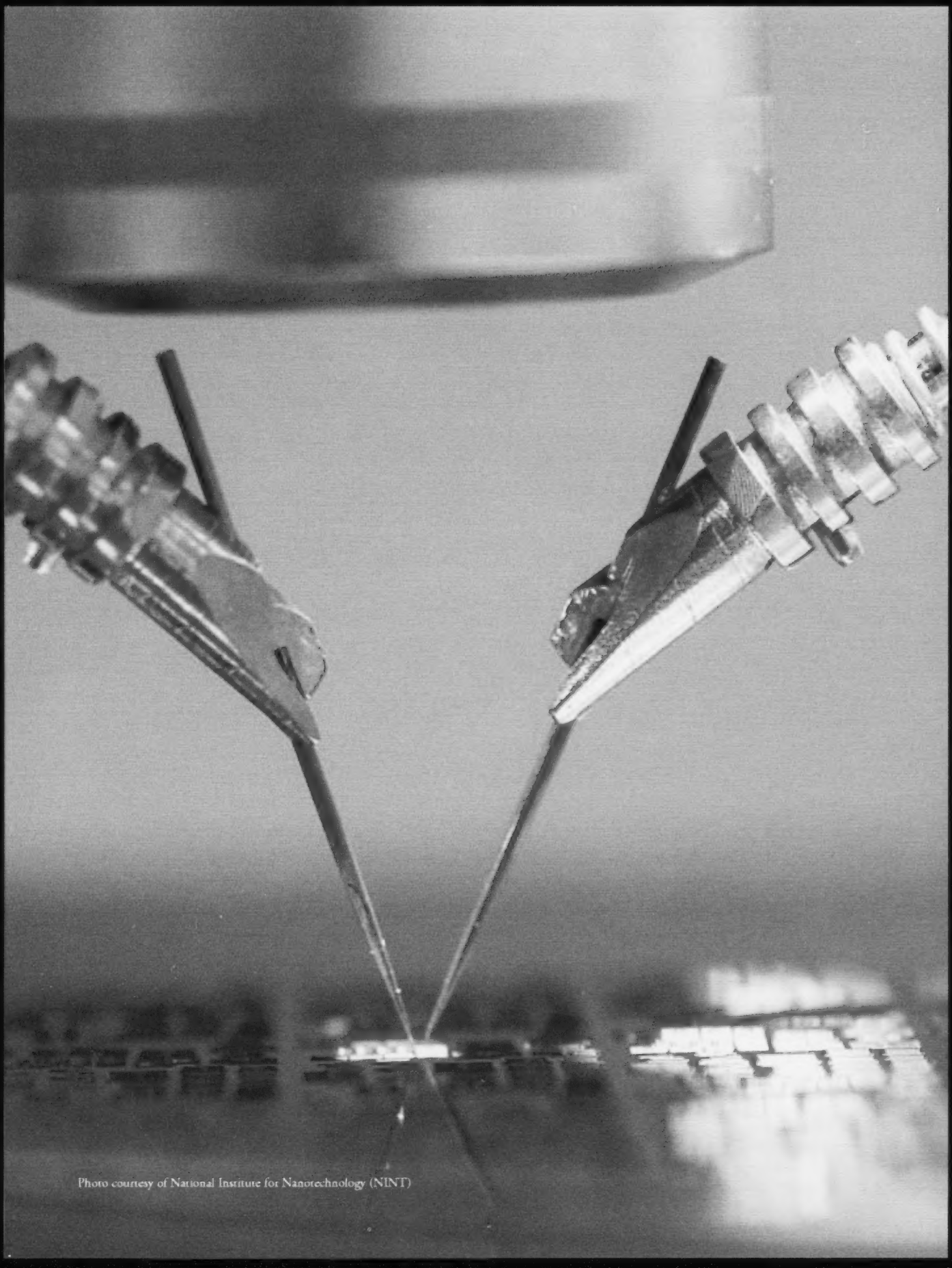


Photo courtesy of National Institute for Nanotechnology (NINT)

2010 marks realignment of Alberta's research and innovation system

In a global economy where knowledge has become the new wealth, research and innovation will play an important role in Alberta's next generation economy.

A knowledge-based future will create new jobs at all levels, from highly qualified scientists and talented technologists to professional services such as administrative, accounting, legal and marketing, to support services such as office supplies and cleaning services. A strong and successful research and innovation system will result in revenues for businesses, opportunities in our post-secondary system, a broader and more diverse tax base to fund priority programs and a strong economy to benefit all Albertans. Intellectual property will be more effectively managed to create sustainable economic growth for Alberta.

For these reasons, Alberta has embarked on the path to creating a culture of innovation that supports innovators, entrepreneurs and technology-based industries as well as motivate, educate and train a 21st Century workforce to meet Alberta's needs.

On January 1, 2010, Alberta launched into the new decade with a new innovation system – **Alberta Innovates** – to strengthen the province as a world leader in using science to create economic prosperity. Five new Alberta Innovates provincial corporations were created through the realignment of 10 provincially-funded research and innovation organizations. This new provincial system now features an international advisory board, the Alberta Research and Innovation Authority, and four agencies under the Alberta Innovates banner that focus on bio solutions, energy and environment solutions, health solutions, and technology commercialization.

Alberta Innovates will:

- improve accessibility and opportunities for collaboration between people and programs by speeding up the process of translating research to results, attracting innovators, scientists and researchers here at home and abroad who are looking for supportive, outcomes-oriented working environments.
- better present our province on the global stage, helping to open up new markets for made-in-Alberta products, processes and services.
- foster commercialization of breakthrough technologies and innovations and thereby attract angel investors, professional venture capitalists, foundations, corporations and others who are using private capital to promote the transition to a sustainable future.
- reduce complexity and duplication enabling our research and innovation system to be more efficient and responsive.

In essence, Alberta Innovates will streamline, coordinate and facilitate technology transfer, clinical trials, communications, local and international business outreach, provision of contract research services, and training activities.

All of these benefits translate to increasing the already high quality of life that Albertans have come to enjoy and ensuring our economy continues to prosper for generations to come all the while maintaining the health of our people and environment.

> "Future generations will look back on 2010 as the year that Alberta's next generation economy took a leap forward with the creation of Alberta Innovates."
>
> PREMIER ED STELMACH

"Future generations will look back on 2010 as the year that Alberta's next generation economy took a leap forward with the creation of Alberta Innovates," said Premier Ed Stelmach. "This updated system will be a catalyst in building a prosperous future for our province. A stronger, more coordinated system will bring new opportunities to Alberta researchers and entrepreneurs."

An integral component of the provincial innovation system, will be the Alberta Innovates Connector Service. The Connector Service will be the helping hand that guides people through Alberta's research and innovation system in their efforts to turn advanced technology ideas into commercial products and services. It will be a personalized, value-added service that helps businesses, innovators, researchers, and investors connect to the information, advice, resources and key people they need to access to commercialize a product, invest in a new technology or innovation or collaborate on research.

"Not only will we be more aligned, but we're launching a new Connector Service to give researchers and entrepreneurs guidance to help them make the connections they need to succeed, right here in Alberta," said Doug Horner, Minister of Advanced Education and Technology. "The Connector will be an Alberta trademark and selling point both at home and around the world. Our resources, our clients, and our businesses are really an extension of one single effort to create a culture of innovation at all levels."

Alberta Innovates is a result of the mandate that was given to Minister Horner in 2008 by Premier Stelmach to develop and implement a framework that defined the roles and mandates for Alberta's provincially-funded research and innovation organizations. Alberta Innovates also contributes to *The Way Forward*, the Government of Alberta's plan for a strong economic recovery, which includes ensuring that our province's industries are competitive and continue to attract investment to provide jobs and prosperity.

To view more, visit: www.albertainnovates.ca/overview/introduction

ALBERTA INNOVATES - TECHNOLOGY FUTURES

MANAGEMENT DISCUSSION AND ANALYSIS

(2009-10 Annual Report)

Forward-Looking Statements

Statements in this Annual Report contain forward-looking statements about the objectives of Alberta Innovates – Technology Futures (AITF) and management's expectations, beliefs, intentions and strategies for the future.

All forward-looking statements reflect management's current views as of March 31, 2010, with respect to future events and are subject to certain risks, uncertainties and assumptions that may cause the actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements.

Such risks, uncertainties and assumptions include, but are not limited to: general economic conditions; actions by government authorities; actions by regulatory authorities; availability of staff; foreign exchange rates; competitor activity; and pricing pressures.

Corporate Profile

AITF was established on January 1, 2010 as a Provincial Corporation that operates under the authority of the *Alberta Research and Innovation Act* to support research and innovation activities targeted at the development and growth of technology-based sectors in alignment with Government of Alberta priorities.

The Corporation is a service organization for technical industries, to accelerate the growth of prosperous business in Alberta. It facilitates the commercialization of new technologies, the development of new knowledge-based industry clusters, and the establishment of an entrepreneurial-based culture across the province.

AITF builds on the legacy of the former Alberta Heritage Foundation for Science and Engineering Research (Alberta Ingenuity Fund), Alberta Research Council, iCORE and nanoAlberta, and other granting programs formerly operated by the Department of Advanced Education and Technology of the Government of Alberta. AITF is a wholly owned subsidiary of the Province of Alberta and accountable to the Minister of Advanced Education and Technology.

AITF currently operates as four (4) separate divisions that are similar to the original corporations. A process is in place to finalize a strategic plan during 2010-2011 for new directions, measures and organizational model. The vision, mission, values and goals below are the beginning of this process.

AITF VISION:

AITF is respected as Canada's leader in generating prosperity through innovation and entrepreneurship.

AITF MISSION:

AITF integrates world-class people, facilities and funding to:

- Help technical industries find solutions, develop products and move technologies to market;
- Build on Alberta's natural advantage in platform technologies to enhance the technical capacity within Alberta's technology-based companies;
- Facilitate access to the strengths of our key partners that help support commercialization and grow new ventures and international exports; and
- Invest in and attract research and entrepreneurial talent who can support these priorities.

AITF GOALS

In alignment with its Vision and Mission, AITF's goals are to:

- Accelerate the growth and fundability of small and medium sized technology firms;
- Increase technology adoption and productivity in mature industrial companies;
- Strengthen the entrepreneurial spirit and evolve the commercial capacity of Alberta's research and innovation community;
- Nurture an environment that supports the establishment of spin-off companies from post-secondary institutions and the creation of new commercially viable technologies from Alberta-based industry;
- Coordinate the establishment and growth of sustainable technology-based industry sectors;
- Facilitate venture capital investments and technology mergers and acquisitions in Alberta; and
- Achieve exceptional client satisfaction, as measured by likeliness to recommend AITF services to others.

At this stage of its evolution, AITF has not established quantifiable performance goals; rather, AITF has set out specific line-of-sight categories for which quantifiable measures will be applied.

AITF DESIRED OUTCOMES

Through its role as a service provider, facilitator, advocate, and capacity builder, AITF strives to achieve the following outcomes:

- Establishment of a competency-based service organization attuned and responsive to the needs of its clients and stakeholders in the Alberta Innovation System;
- Launch and/or growth of successful technology companies that can attract private capital;
- Attraction of multi-national enterprises and private capital investment in Alberta-based product development activities;
- Enhanced effectiveness within the Alberta Innovation System through the building of trust amongst innovation partners and a shared spirit of entrepreneurialism;
- Reduced risk to companies pursuing technology-based growth and associated reduction of risk for next stage investors;
- Reduced product development costs to AITF's customers and an increase in speed-to-market for commercially-viable technology products;
- Growth of a workforce that will participate in, and lead, high technology companies; and
- Establishment of exceptionally-networked technology-based industrial engines (clusters) to drive and diversify the economy.

Financial Highlights (all figures in $000's)

The results for the year ended March 31, 2010 and 2009 are summarized below and include the consolidated results for AITF and its wholly owned subsidiary C-FER Technologies (1999) Inc. The results have been restated as though the Corporation had always existed with its current responsibilities.

	Year		Budget
	2009	2010	2011
Gross Revenue	139,258	133,442	143,793
Grants from the Province of Alberta	79,197	74,596	81,113
External Contract Revenue	42,229	45,258	50,698
Contract Revenue from Province of Alberta	12,887	9,059	6,808
Royalties and Product Sales	3,904	4,200	4,749
Salaries, Wages and Employee Benefits	60,610	61,456	62,082
Grants Awarded	43,952	44,518	51,332
Operating Surplus (Deficit)	334	(652)	326
Leverage[1]	0.76	0.79	0.77
Investment in Capital Assets	4,591	2,739	2,800

[1] *Leverage = [Gross Revenue less Grant from Province of Alberta] divided by [Grant from the Province of Alberta]*

AITF Funding

During 2009-10, AITF's gross revenue was $133.4 million, of which $74.6 million was grant funds from the Province of Alberta. External contract revenue totalled $45.3 million. Grant funds were used to award grants of $44.5 million. The remainder was used to support strategic programs, technology deployment and investment in capital equipment.

The province's grant funding is essential to maintain stability, leverage consortia and generate additional longer-term research support from other government and industry sources. AITF strives to maintain long-term strategic research and development capacity on behalf of the Government of Alberta while ensuring relevance through market discipline and industrial linkages.

Core funding awarded as grants supports the commercialization needs of post-secondary institutions, industry and other Research Performers. Funding is also provided to regional delivery providers, to provide a pan-Alberta approach to commercialization and accelerated growth within technology-based organizations and clusters.

Technical Services

Technical services' strength and reputation is built around excellence delivered by high-impact programs currently focused in eleven (11) market domains:

- Bitumen and Heavy Oil Recovery
- Carbon Conversion, Capture & Storage
- Enhanced Gas and Oil Recovery
- Value-Added Petroleum Processing
- Integrated Landscape Management
- Water Resource Management
- Resource Recovery
- Building Products and Systems
- Industrial Bio-Products
- Health
- Technology Deployment

Grant Funding Programs

Grant funding is provided to post-secondary institutions, industrial and regional development agencies consistent with the priorities of the Government of Alberta. Funding is provided for new research chairs, industrial chairs, professors, graduate students, student scholarships, industry centres and other industrial programs.

Accounting Policy Application and Changes

The consolidated financial statements of AITF have been presented as though AITF had always been assigned with its current responsibilities. This is in accordance with the CICA Emerging Issues Committee Abstract 89 Exchanges of Ownership Interests between Enterprises under Common Control – Wholly and Partially Owned Subsidiaries.

With the restructuring of the research entities, AITF has adopted the accounting standards set by the Public Sector Accounting Board (PSAB). Accordingly, the financial statements have been prepared in accordance with Canadian generally accepted accounting principles for the public sector.

MANAGEMENT DISCUSSION AND ANALYSIS CONTINUED

(2009-10 Annual Report)

Results of Operations

Total revenue decreased by 4.2% to $133.4 million of which the Provincial grants were $74.6 million. Leverage, a ratio equal to gross revenue less grants from the Province of Alberta divided by grants from the Province of Alberta, was 0.79.

REVENUE

- Total revenue for 2009-10 was $133.4 million
- Contract revenue from commercial sources was $45.3 million
- Contract revenue from Alberta government sources was $9.1 million
- Royalties and Product Sales were $4.2 million

SURPLUS

- Net operating results, before the write-down of capital assets, was $99,000 compared to a budget of $112,000
- As a result of the transition to the new Corporation, the net book value of capital assets in the founding agencies including furniture and leasehold improvements totalling $751,000 were written down
- Interest on cash balances for the year was $329,000. Average rate of return on cash was 0.97%

FINANCIAL CONDITION

- Total AITF assets were $78.4 million
- AITF net assets were $32.1 million
- Total accounts receivable were $30.1 million. The aged profile of accounts receivable was 9.6% over 90 days

HUMAN RESOURCES

- Revenue per employee was $230,869 for the year
- Total employee turnover was 59 or 10% for the year. Total employees hired were 39.

Outlook

Fiscal year 2010-11 will focus on strategic planning to ensure alignment with the goals and priorities of Alberta Innovates. AITF is expected to translate provincial economic goals into outcomes, issues and gaps and then use grant funding from the province to support innovation and commercialization.

As the world recovers from the financial market turmoil, AITF will continue to focus on changing business conditions, financial prudence and organizational productivity. AITF will take steps to improve the linkage between its operational agenda and strategic plan by fully implementing the corporate planning and market foresight capacity. This will identify critical issues, needs and opportunities within industrial sectors and guide program development in energy, life sciences and commercialization.

AITF will continue to improve overall productivity through streamlining overhead costs and productivity gains in technical services. A corporate information system will go through the planning phase during 2010-11 with implementation targeted to begin the following year. AITF will requalify for Safety COR accreditation during 2010-11.

The AITF operating budget plan for 2010-11 includes $143.8 million in gross revenue, which includes $81.1 million in grant from the province. External contract revenue is budgeted at $50.7 million, which is an increase of 12% over 2009-10. Alberta government contract revenue is expected to be $6.8 million (decrease of 25%) and royalties and products sales of $4.7 million (increase of 12%).

Risk Factors

AITF is exposed to several factors that could adversely affect its operations and outcomes. Senior management is expected to identify risks and develop appropriate risk management practices and policies which are reported annually to the Audit Committee of the Board of Directors for review and assessment.

FUNDING RISK

AITF is highly dependant on on-going grant funding from the Province. Any significant decrease in annual grant funding would reduce support for industry consortia, market domain and commercialization programs, grants awarded and investment in capital equipment. AITF will emphasize alignment with provincial priorities in all program areas and implement a reporting measurement program to secure government support and future funding.

MARKET RISK

Market risk is due to fluctuations in the demand for technical services based on economic or customer-specified factors. AITF's risk mitigation strategies include client relationship management, the delivery of unique and superior services that focus on issues critical to Alberta, and diversification into strategic industrial sectors.

OPERATING RISK – FACILITIES

One of the major operating risks faced by AITF is the growing age of buildings, which could result in closure of labs and offices for extended periods of time for modernization and major repairs. This could jeopardize AITF's capacity and ability to meet its provincial mandate. AITF will prioritize programs for lab maintenance, ensure shut-down times are limited when possible and obtain additional space as necessary when planning for facility modifications.

To protect against loss, AITF maintains appropriate property and liability insurance coverage through the Alberta Government's Risk Management and Insurance.

AITF also has a Business Recovery and Resumption Plan fully integrated with its Emergency Response Plan as part of the overall AITF Crisis Management Plan. The Business Recovery Plan provides an organized and consolidated approach to managing the response and recovery activities following any unplanned incident or business interruption.

OPERATIONAL RISK – HEALTH, SAFETY AND ENVIRONMENT

Health, safety and environmental risk results from the research lab and field environments at AITF. Some research activities have a higher risk than a typical industrial environment which can increase risk to staff and equipment. The Directors and Officers of the corporation are potentially liable for health or safety issues and any resulting injuries.

Mitigation includes risk assessment, safe operating procedures and an embedded safety first culture for both staff and partners. AITF has also received its Certificate of Recognition for its occupational health and safety management system which is a comprehensive and auditable safety program. AITF's health, safety and environment program meets and often exceeds all regulatory and due diligence requirements.

Under legislation flammable or explosive atmospheres make a work site hazardous with subsequent legislative requirements to assess the risk and implement reasonable and practicable controls. AITF is considered to be a hazardous work site and mitigation includes a Hazardous Materials Management System, engineered controls such as fume hoods and ventilation, and other leading edge methods. AITF's Health, Safety and Environment program identifies the hazards, assesses the risks, implements reasonable and practicable controls and continuously evaluates the program to strive to be in the top 10 percentile of our peers.

OPERATING RISK – INTELLECTUAL CAPITAL

AITF's intellectual capital includes world-class engineers and scientists and maintaining their prominence and reputation has a direct correlation to the significance of the research being undertaken and the recognition of AITF as a 'go to' resource for industry and government. Attracting and retaining world-class engineers and scientists can help attract major projects, customers and partners to AITF. AITF strives to enhance employee branding and has a comprehensive performance management and compensation system to attract and retain top scientists and engineers.

OPERATING RISK – FINANCIAL

To ensure accurate financial reporting and to minimize the risk of fraud, AITF maintains appropriate internal control systems including segregation of duties and built-in checks and balances.

To ensure financial accountability, AITF manages its finances through a monthly, quarterly and annual reporting process. On a monthly basis, unit managers report to operating Vice-presidents. Vice-presidents report quarterly to the Chief Executive Officer and the Chief Financial Officer during a financial review process. The Chief Executive Officer and the Chief Financial Officer in turn report quarterly to the Board of Directors. Annually the board reports to the Ministry of Advanced Education and Technology. At each reporting interval, decisions are made to respond to changing conditions that deviate from the operating plan to ensure AITF's overall performance remains satisfactory.

Corporate Governance

AITF's Board of Directors presently includes eleven (11) members all of whom are independent and free from any interest that could interfere with their ability to act in the best interest of the Corporation and its owner, the Government of Alberta.

The board's mandate is to oversee and ensure accountability from AITF's management, with a view to the company's best interests.

The board fulfills its mandate by:

- Overseeing the strategic and business planning process;
- Understanding the principal risks of the corporation's business and ensuring appropriate systems are in place to manage those risks;
- Approving, developing and monitoring the senior executive team;
- Ensuring AITF has policies and processes in place to communicate effectively with the Government of Alberta, other stakeholders and the public in general.
- Reviewing and approving the annual audited financial statements, quarterly financial statements and related Management's Discussion and Analysis based on recommendations of the Audit Committee;
- Ensuring effective internal control and information systems are in place so the board can discharge its legal responsibilities, especially in relation to the integrity of financial data, accounting principles, environmental regulations, corporate strategy implementation and material decisions.

AITF's board includes a Governance and Compensation Committee and an Audit Committee, which are composed entirely of independent directors. The Governance and Compensation Committee ensures an appropriate corporate governance system is in place for the Board to discharge its obligations, reviews compensation and performance of the CEO and other members of senior management and assesses the performance of the Board and Board Committees. The Audit Committee monitors, evaluates, advises and makes recommendations to the Board on matters affecting the annual financial audit, risk management and the internal control policies and practices of the Corporation.

This Management's Discussion and Analysis is dated as of May 13, 2010.

ALBERTA INNOVATES - TECHNOLOGY FUTURES

MANAGEMENT'S RESPONSIBILITY FOR FINANCIAL REPORTING

To our Stakeholders

The accompanying financial statements and other financial information contained in this annual report are the responsibility of management and have been approved by the board of directors.

The financial statements have been prepared in accordance with Canadian generally accepted accounting principles, using management's estimates and judgements where appropriate. Financial and operating data elsewhere in this annual report are consistent with information contained in the financial statements.

To discharge its responsibility for the objectivity of financial reporting, management maintains a system of accounting and administrative controls. This system is designed to provide management with reasonable assurance that transactions are properly authorized, assets are safeguarded against loss from unauthorized use or disposition, and that financial records are properly maintained to provide accurate and reliable financial statements.

The board of directors discharges its responsibility for the financial statements principally through its audit committee, which consists of four directors who are not officers or employees of the corporation.

The financial statements have been audited by the Auditor General of Alberta, who has full and free access to the audit committee. The auditor's report follows.

GARY ALBACH, Ph.D.
President and CEO

KEITH D. SALMON, CA
CFO and Corporate Secretary

May 13, 2010

AUDITOR'S REPORT

AUDITOR GENERAL
Alberta

To the Board of Directors

I have audited the consolidated statement of financial position of Alberta Innovates – Technology Futures as at March 31, 2010 and 2009 and the consolidated statements of operations and cash flows for the years then ended. These financial statements are the responsibility of Technology Futures' management. My responsibility is to express an opinion on these financial statements based on my audits.

I conducted my audits in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of Alberta Innovates – Technology Futures as at March 31, 2010 and 2009 and the results of its operations and its cash flows for the years ended in accordance with Canadian generally accepted accounting principles.

[Original signed by Merwan N. Saher]

CA
Auditor General

Edmonton, Alberta
May 13, 2010

ALBERTA INNOVATES - TECHNOLOGY FUTURES

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at March 31, 2010 and 2009

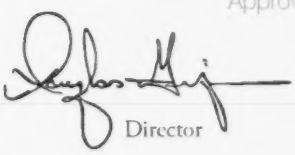
(dollars in thousands)

	2010	2009
Assets		
Cash (Note 3)	$ 23,458	$ 25,092
Accounts Receivable and Other Assets (Note 4)	30,057	21,976
Tangible Capital Assets (Note 5)	24,862	25,780
	$ 78,377	$ 72,848
Liabilities		
Accounts Payable and Accrued Liabilities	$ 16,549	$ 17,725
Unearned Revenue (Note 6)	29,705	22,348
	46,254	40,073
Net Assets		
Net Assets at Beginning of Year	32,775	32,441
Net Operating Results	(652)	334
Net Assets at End of Year	32,123	32,775
	$ 78,377	**$ 72,848**

Contractual Obligations (Note 7)

The accompanying notes and schedules are an integral part of these financial statements.

Approved by the Board of Directors



Director

Director

ALBERTA INNOVATES - TECHNOLOGY FUTURES

CONSOLIDATED STATEMENT OF OPERATIONS

Year Ended March 31, 2010 and 2009

(dollars in thousands)

	2010 Budget	2010 Actual	2009 Actual
Revenues			
Grants from Province of Alberta	$ 74,657	$ 74,596	$ 79,197
External Contract Revenue	48,559	45,258	42,229
Contract Revenue from Province of Alberta	12,405	9,059	12,887
Royalties and Product Sales	2,299	4,200	3,904
Interest Income	600	329	1,041
	138,520	133,442	139,258
Expenses - Directly Incurred (Schedule 1 and Note 2 d)			
Energy	41,128	39,600	39,578
Life Sciences	24,017	22,359	25,406
Engineered Products & Services	12,940	14,291	13,518
Deployment	9,087	5,772	7,067
Programs	51,236	51,321	51,025
	138,408	133,343	136,594
	112	99	2,664
Loss on Disposal/Writedown of Tangible Capital Assets	-	751	2,330
Net Operating Results	$ 112	$ (652)	$ 334

The accompanying notes and schedules are an integral part of these financial statements.

ALBERTA INNOVATES - TECHNOLOGY FUTURES

CONSOLIDATED STATEMENT OF CASH FLOWS

Year Ended March 31, 2010 and 2009

(dollars in thousands)

	2010	2009
Operating Transactions		
Net Operating Results	$ (652)	$ 334
Non-Cash Items Included in Net Operating Results:		
Amortization	2,906	2,540
Impairment/Disposition of Tangible Capital Assets	751	2,330
Net change in Non-Cash Working Capital Items:		
(Increase)/Decrease in Accounts Receivable & Other Assets	(8,081)	1,495
(Decrease) in Accounts Payable and Accrued Liabilities	(1,176)	(1,485)
Increase in Unearned Revenue	7,357	5,965
Cash Generated from Operating Transactions	1,105	11,179
Capital Transactions		
Purchase of Tangible Capital Assets	(2,739)	(4,591)
Proceeds on Sale of Tangible Capital Assets	-	15
Cash Applied to Capital Transactions	(2,739)	(4,576)
(Decrease)/Increase in Cash	**(1,634)**	**6,603**
Cash at Beginning of Year	**25,092**	**18,489**
Cash at End of Year	**$ 23,458**	**$ 25,092**

The accompanying notes and schedules are an integral part of these financial statements.

NOTES TO THE FINANCIAL STATEMENTS

Year Ended March 31, 2010 and 2009

NOTE 1 AUTHORITY AND PURPOSE

Alberta Innovates - Technology Futures (the Corporation) is a Provincial Corporation that was established on January 1, 2010 and operates under the authority of the Alberta Research and Innovation Act. The objects of the Corporation are to support, for the economic and social well-being of Albertans, research and innovation activities targeted at the development and growth of technology-based sectors and aligned to Government of Alberta priorities, including, without limitation, activities directed at the commercialization of technology and the application of knowledge.

The Corporation is a wholly owned subsidiary of the Ministry of Advanced Education and Technology and accountable to the Minister of Advanced Education and Technology. The Ministry of Advanced Education and Technology and its wholly owned subsidiaries are exempt from the payment of income tax under Section 149 of the Income Tax Act.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND REPORTING PRACTICES

These consolidated financial statements are prepared in accordance with Canadian generally accepted accounting principles for the public sector as recommended by the Public Sector Accounting Board (PSAB) of the Canadian Institute of Chartered Accountants. The PSAB financial statement presentation standard for government summary financial statements has been modified to more appropriately reflect the nature of the Corporation.

The measurement of certain assets and liabilities is contingent upon future events; therefore, the preparation of these financial statements requires the use of estimates, which may vary from actual results. Management uses judgment to determine such estimates. In management's opinion, the resulting estimates are within reasonable limits of materiality and are in accordance with the significant accounting policies summarized below.

a) Restatement of financial information prior to January 1, 2010

On January 1, 2010, the Research and Innovation Act and regulation were proclaimed which resulted in the combination of Alberta Research Council Inc. (ARC), iCORE Inc. (iCORE), Alberta Heritage Foundation for Science and Engineering Research (Alberta Ingenuity Fund) excluding programs related to the Alberta Prion Research Institute and the Alberta Water Research Institute, nanoAlberta and programs related to the Bringing Technology to Market action plan under Alberta Advanced Education and Technology into Alberta Innovates – Technology Futures.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND REPORTING PRACTICES CONTINUED

a) Restatement of financial information prior to January 1, 2010 continued

This transaction has been accounted for as a continuity-of-interests, which maintains the carrying value of the assets and liabilities of the combined entities. This method of accounting is in accordance with CICA Emerging Issues Committee Abstract 89 Exchanges of Ownership Interests between Enterprises Under Common Control – Wholly and Partially Owned Subsidiaries. Accordingly, these financial statements have been prepared to reflect the financial position and results of operations and cash flows for all periods presented as if ARC, iCORE, Alberta Ingenuity Fund excluding the programs related to the Alberta Prion Research Institute and the Alberta Water Research Institute, nanoAlberta, and other programs had been combined since their inception. The transaction is considered to be a transaction between companies under common control and financial statements of the Corporation will reflect the new consolidated structure as if this consolidated structure had always been in place. Schedule 5 includes details on the restatement of the comparative balances.

b) Basis of Consolidation

These consolidated financial statements include the accounts of the Corporation and its wholly owned subsidiary, C-FER Technologies (1999) Inc. All intercompany balances and transactions have been eliminated on consolidation.

c) Revenue recognition

All revenues are reported on the accrual basis of accounting. Cash received for which goods or services have not been provided by year end is recorded as unearned revenue.

Grants from the Province of Alberta are recognized as revenue in the year the transfers are authorized. Transfers received before revenue recognition criteria have been met are included in unearned revenue.

Contract revenue is recognized using the percentage of completion method. The Corporation makes full provision for all known or estimated losses on uncompleted contracts as soon as they can reasonably be estimated.

Royalties and licensing fees are recognized as they accrue in accordance with the relevant agreements, when an amount can be reasonably estimated and there is reasonable assurance of collectability of proceeds.

Revenue from product sales is recognized when products are delivered.

Interest income is recorded on the accrual basis where there is reasonable assurance as to its measurement and collectability.

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND REPORTING PRACTICES CONTINUED

d) Expenses

Directly incurred expenses are costs the Corporation has primary responsibility and accountability for, including operating expenses such as salaries and benefits, and supplies and services.

Program grants are recognized as expenses when authorized, eligibility criteria, if any, are met, and a reasonable estimate of the amounts can be made.

Services contributed by other entities in support of the Corporation's operations have not been recorded in the financial statements and are disclosed in Schedule 3.

e) Tangible Capital Assets

Tangible capital assets of the Corporation are recorded at cost and amortized on a straight-line basis over the estimated useful life of the assets. The threshold for capitalizing new systems development is $100,000 and the threshold for major enhancements is $25,000. The threshold for all other tangible capital assets is $5,000. All land is capitalized but not amortized.

Donated assets are recorded at their fair value at the time of contribution. Fair value is defined as the amount of consideration that would be agreed upon in an arms length transaction between knowledgeable, willing parties who are under no compulsion to act.

f) Net Assets

Net assets represent the difference between the carrying value of assets held by the Corporation and its liabilities.

g) Patents

Expenses incurred related to patents owned by the Corporation as a result of research activity are not capitalized due to the uncertain value of benefits which may accrue to the Corporation.

h) Other Intangible Assets

Expenses incurred on the development of other intangible assets, including intellectual capital, are not capitalized unless it is probable that the expected future economic benefits that are attributable to the asset will flow to the Corporation and the cost of the asset can be measured reliably.

NOTES TO THE FINANCIAL STATEMENTS CONTINUED

NOTE 2 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND REPORTING PRACTICES CONTINUED

i) Employee Future Benefits

The Corporation participates in multi-employer pension plans with related government entities. Pension costs included in these financial statements are comprised of the cost of employer contributions for the current service of employees during the year and additional employer contributions for service relating to prior years.

NOTE 3 CASH

Cash is comprised of cash deposited in the Consolidated Cash Investment Trust Fund (CCITF). The CCITF is administered by the Ministry of Finance and Enterprise with the objective of providing competitive interest income to depositors while maintaining appropriate security and liquidity of depositors' capital.

CCITF is comprised of high-quality short-term and mid-term fixed-income securities with a maximum term-to-maturity of three years. As at March 31, 2010, securities held by the Corporation have an annualized rate of return of 0.97% per annum (2009 – 3% per annum).

NOTE 4 ACCOUNTS RECEIVABLE AND OTHER ASSETS

(in thousands)

	2010			2009
	Gross Amount	Allowance for Doubtful Accounts	Net Realizable Value	Net Realizable Value
Accounts receivable	$ 10,775	$ 426	$ 10,349	$ 10,444
Alberta Government Departments and Agencies	12,854	-	12,854	6,468
Accrued income receivable	6,306	-	6,306	4,588
Prepaid	548	-	548	476
	$ 30,483	**$ 426**	**$ 30,057**	**$ 21,976**

NOTE 5 TANGIBLE CAPITAL ASSETS

(in thousands)

	Land	Building[a]	Equipment	Computer Hardware	2010 Total	2009 Total
Estimated Useful Life	Indefinite	30 years	5-20 years	3 years		
Historical Cost						
Beginning of year	$ 566	$ 4,827	$ 45,832	2,552	$ 53,777	$ 54,261
Additions	-	146	2,424	169	2,739	4,591
Disposals, including write-downs	-	(523)	(492)	(292)	(1,307)	(5,075)
	$ 566	$ 4,450	$ 47,764	$ 2,429	$ 55,209	$ 53,777
Accumulated Amortization						
Beginning of year	$ -	$ 1,335	$ 24,925	$ 1,737	$ 27,997	$ 28,187
Amortization expense	-	244	2,272	390	2,906	2,540
Effect of disposals	-	(158)	(188)	(210)	(556)	(2,730)
	$ -	$ 1,421	$ 27,009	$ 1,917	$ 30,347	$ 27,997
Net Book Value at End of Year	$ 566	$ 3,029	$ 20,755	$ 512	$ 24,862	
Net Book Value at Beginning of Year	$ 566	$ 3,492	$ 20,907	$ 815		$ 25,780

[a] Building includes Leasehold Improvements which are amortized over 25 years.

NOTE 6 UNEARNED REVENUE

(in thousands)

	2010	2009
Balance, beginning of year	$ 22,348	$ 15,255
Grants received	11,124	5,506
Investment Income received	66	190
Grants recognized into revenue	(5,874)	(4,178)
Investment Income recognized into revenue	(66)	(190)
Net changes for commercial contract revenue	2,107	5,765
	$ 29,705	$ 22,348

NOTE 7 CONTRACTUAL OBLIGATIONS

(in thousands)

Contractual obligations are obligations of the Corporation to others that will become liabilities in the future when the terms of those contracts or agreements are met.

Estimated payment requirements for each of the next five years are as follows:

Obligations Under Operating Leases, Contracts and Programs

	Operating Leases	Programs	Total
2011	$ 591	$ 30,109	$ 30,700
2012	588	23,239	23,827
2013	585	15,677	16,262
2014	501	8,167	8,668
2015	462	6,513	6,975
Thereafter	417	-	417
	$ 3,144	**$ 83,705**	**$ 86,849**

NOTE 8 EMPLOYEE FUTURE BENEFITS

(in thousands)

The Corporation participates in three multi-employer pension plans, Management Employees Pension Plan, Supplementary Retirement Plan and Public Service Pension Plan, as well as a Defined Contribution Plan. The expense for these pension plans is equivalent to the annual contributions of $3,835 for the year ended March 31, 2010 (2009 – $3,554).

At December 31, 2009, the Management Employees Pension Plan reported a deficiency of $483,199 (2008 – deficiency $568,574) and the Public Service Pension Plan reported a deficiency of $1,729,196 (2008 – deficiency $1,187,538). At December 31, 2009, the Supplementary Retirement Plan for Public Service Managers had a deficiency of $39,516 (2008 – deficiency $7,111).

NOTE 9 SUBSEQUENT EVENT

As part of the restructuring of Alberta research and innovation programs, the Ministry of Advanced Education and Technology is transferring the assets and liabilities of the Regional Support Services, Youth Technopreneurship Project and the Innovation Voucher Program to the Corporation effective April 1, 2010.

NOTE 10 COMPARATIVE FIGURES

Certain 2009 figures have been reclassified to conform to the 2010 presentation.

ALBERTA INNOVATES - TECHNOLOGY FUTURES

SCHEDULE 1 - EXPENSES - DIRECTLY INCURRED BY OBJECT

Year Ended March 31, 2010 and 2009

(dollars in thousands)

	2010 Budget	2010 Actual	2009 Actual
Salaries, Wages & Employee Benefits	$ 60,764	$ 61,456	$ 60,610
Grants	43,740	44,518	43,952
Supplies & Services	31,277	24,463	29,492
Amortization of Tangible Capital Assets	2,627	2,906	2,540
	$ 138,408	**$ 133,343**	**$ 136,594**

ALBERTA INNOVATES - TECHNOLOGY FUTURES

SCHEDULE 2 - SALARIES AND BENEFITS DISCLOSURE

Year Ended March 31, 2010 and 2009

	2010				2009
	Base Salary [1]	Other CashB enefits [2]	Other Non-Cash Benefits [3]	Total	Total
Chair of the Board [4]	$ -	$ 1,368	$ -	$ 1,368	$ -
Board Members [4]	-	9,166	-	9,166	-
Chief Executive Officer [5]	243,147	133,371	22,035	398,553	392,340
Executives:					
Chief Financial Officer [6]	171,307	50,000	40,995	262,302	262,998
Vice President [7]	317,706	-	-	317,706	322,078
Vice President [8]	182,709	65,000	43,462	291,171	277,933
Vice President [9]	182,524	10,000	34,440	226,964	213,000
Vice President [10]	147,093	10,000	31,895	188,988	180,000

Prepared in accordance with Treasury Board Directive 12/98 as amended.

[1] Base salary includes regular base pay.

[2] Other cash benefits include bonuses, vacation payouts, car allowance, overtime, payments made in lieu of benefits, lump sum payments and honoraria.

[3] Other non-cash benefits include employee benefits and contributions or payments made on behalf of employees including pension and supplementary retirement plan, employee health care expense accounts, dental coverage, major medical, group life insurance, short and long term disability plans, WCB premiums (estimated) and professional memberships.

[4] The Board of Directors for the new Corporation was effective January 1, 2010. These figures represent payments made between January 1, 2010 and March 31, 2010.

[5] Represents 12 months compensation including a new interim CEO appointed January 1, 2010.

[6] CFO was the CFO for the former Alberta Research Council.

[7] Vice President was the CEO for the former iCORE

[8] Vice President was Vice President, Energy for the former Alberta Research Council.

[9] Vice President was Vice President, Corporate Services for the former Alberta Ingenuity Fund.

[10] Vice President was Vice President Finance and CFO for the former Alberta Ingenuity Fund.

ALBERTA INNOVATES - TECHNOLOGY FUTURES

SCHEDULE 3 - RELATED PARTY TRANSACTIONS

Year Ended March 31, 2010 and 2009

The Corporation had the following transactions with related parties which are recorded on the Consolidated Statement of Operations and the Consolidated Statement of Financial Position at the amount of consideration agreed upon between the related parties. In this Schedule, the Ministry refers to the Ministry of Advanced Education and Technology.

(dollars in thousands)

	Entities in the Ministry		Other Entities Outside of the Ministry	
	2010	2009	2010	2009
Revenues				
Grants	$ 74,596	$ 79,197	$ -	$ -
Other	7,571	9,516	1,488	3,371
	$ 82,167	$ 88,713	$ 1,488	$ 3,371
Expenses – Directly Incurred				
Grants	$ 33,481	$ 35,665	$ -	$ -
Other Services	368	697	678	603
	$ 33,849	$ 36,362	$ 678	$ 603
Receivables from	$ 12,363	$ 5,572	$ 491	$ 896
Payables/ Unearned Revenue to	$ 12,774	$ 9,070	$ 238	$ 564
Contractual Obligations	$ 75,411	$ 66,732	$ -	$ -

The above transactions do not include support service arrangement transactions disclosed below.

The Corporation also had the following transactions with related parties for which no consideration was exchanged. The amounts for these related party transactions are estimated based on the costs incurred by the service provider to provide the service. These amounts are not recorded in the financial statements. Accommodation expenses incurred by others are disclosed in Schedule 4.

	Other Entities Outside of the Ministry	
	2010	2009
Expenses – Incurred by Others		
Accommodation [1]	$ 14,573	$ 1,820
	$ 14,573	$ 1,820

[1] The methodology for allocation of accommodation costs changed during fiscal 2010. The Corporation's share of accommodation costs is based on the proportion of space occupied compared to the total space occupied by all Ministries.

ALBERTA INNOVATES - TECHNOLOGY FUTURES

SCHEDULE 4 - ALLOCATED COSTS

Year Ended March 31, 2010 and 2009

(dollars in thousands)

	2010			2009
	Expenses – Incurred by Others			
Program	Expenses [a]	Accommodation Costs [b]	Total Expenses	Total Expenses
Energy	$ 39,600	$ 7,073	$ 46,673	$ 49,738
Life Sciences	22,359	4,356	26,715	32,840
Engineered Products & Services	14,291	2,709	17,000	17,367
Deployment	5,772	224	5,996	7,444
Programs	51,321	211	51,532	51,025
	$ 133,343	**$ 14,573**	**$ 147,916**	**$ 158,414**

[a] Expenses – Directly Incurred as per Consolidated Statement of Operations.

[b] Costs shown for Accommodation are allocated based on proportion of full time equivalent staff.

ALBERTA INNOVATES - TECHNOLOGY FUTURES

SCHEDULE 5 - RESTATEMENT OF 2009

Year Ended March 31, 2010 and 2009

(dollars in thousands)

	March 31, 2009 audit financial statements as previously published			Programs transferred to		Programs transferred from Department of Advanced Education and Technology		Alignment and eliminations [4]	Restated March 31, 2009
	Alberta Research Council	iCORE	Alberta Ingenuity Fund	Alberta Innovates - Bio Solutions [1]	Alberta Innovates - Energy and Environment Solutions [2]	nano Alberta	ICT [3]		Alberta Innovates - Technology Futures
Assets	$ 61,017	$ 1,808	$ 57,575	$ (21,056)	$ (26,932)	$ 976	$ -	$ (540)	$ 72,848
Liabilities	$ 32,229	$ 1,763	$ 56,126	$ (21,056)	$ (26,932)	$ 976	$ -	$ (3,033)	$ 40,073
Net Assets									
Opening	27,512	42	2,736	-	-	-	-	2,151	32,441
Operating Results	1,276	3	(1,287)	-	-	-	-	342	334
	28,788	45	1,449	-	-	-	-	2,493	32,775
	$ 61,017	$ 1,808	$ 57,575	$ (21,056)	$ (26,932)	$ 976	$ -	$ (540)	$ 72,848
Revenues	$ 89,183	$ 12,882	$ 45,102	$ (6,889)	$ (8,645)	$ 9,331	$ 1,500	$ (3,206)	$ 139,258
Expenses	87,907	12,879	46,389	(6,889)	(8,645)	9,331	1,500	(3,548)	138,924
Operating Results	$ 1,276	$ 3	$ (1,287)	$ -	$ -	$ -	$ -	$ 342	$ 334

[1] The Alberta Prion Research Institute, Centre for Livestock Genomics and Centre for Performance Oilseeds were transferred from the Alberta Ingenuity Fund.

[2] The Alberta Water Research Institute, Centre for In-Situ Energy, Centre for Oil Sands Innovation and Centre for Clean Coal, Carbon Capture and Minerals Processing Technologies were transferred from the Alberta Ingenuity Fund.

[3] ICT refers to Information and Communications Technology.

[4] Adjustments for accounting standard change and intercompany eliminations.

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